ž;

ij





PTO/SB/05 (2/98)
Please type a plus sign (+) inside this box

Approved for use through 09/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL

First Inventor or Application Identifier METHOD FOR FABRICATING BGA PACKAGE.

TONGBI JIANG

Only for new nonprovisional applications under 37 C.F.R. § 1.53(b)) Express Mail Label No.

Attomey Docket No.

EE 697 314 553US

98-0645.1

	APPLICATION ELEMENTS		ADDRESS TO	. Box Patent A	pplication			
See MPEP ch	napter 600 concerning utility patent application contents.	<u>.L</u>	<u></u> _	Washington.		200		
1 1	Fee Transmittal Form (e.g., PTO/SB/17) ubmit an original and a duplicate for fee processing)	6.		, ,	gram (Appendix)	25.		
	pecification [Total Pages 24]	7.	Nucleotide and/o (if app <u>licabl</u> e, all		equence Submissio	10 E	劃	
	referred arrangement set forth below)			mputer Readab	le Copy	٦ ا	₽ °	
	Descriptive title of the Invention			•	• •	_	F -	
	Cross References to Related Applications Statement Regarding Fed sponsored R & D		b. Par	per Copy (ident	ical to computer cop	y)	1	
	Reference to Microfiche Appendix		c. Sta	tement verifyin	g identity of above co	opies		
- E	Background of the Invention		ACCOMPA	ANYING APP	LICATION PARTS	3	I	
	Brief Summary of the Invention	8.	Assignmen	nt Papers (cove	r sheet & document	(s))	1	
- E	Brief Description of the Drawings (if filed)		<u></u>	3.73(b) Statem		(-//	ŀ	
· - C	Detailed Description	9.		e is an assigne		Attorney		
- 0	Claim(s)	10.		-	ment (if applicable)			
	Abstract of the Disclosure		Information	n Disclosure	Conico of	IDS		
3. X Dr	rawing(s) (35 U.S.C. 113) [Total Sheets 6]	n 1.	1 Y I	(IDS)/PTO-144			1	
4. Oath or i	Declaration [Total Pages 3]	12.	X Preliminary	y Amendment				
a. 「	Newly executed (original or copy)	13.		ceipt Postcard				
ь. Г	X Copy from a prior application (37 C.F.R. § 1.6	3(d))	Snould be	specifically ite			į	
ь. L	[Note Box 5 below]	14.	Statement	, State	ement filed in prior a us still proper and de		4	
	DELETION OF INVENTOR(S)		(PTO/SB/09	-12) Can		ssired		
	Signed statement attached deleting	15.		opy of Priority I			1	
	inventor(s) named in the prior application see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b		x Other:	CHANGE OF	ADDRESS FOR		l	
5. X Inco	prporation By Reference (useable if Box 4b is checked)		COF	RESPONDE	ICE; EXPRESS	MAIL	der 1	
	entire disclosure of the prior application, from which		INTE END ITEMS (2)	A IN OPPER TO B	E ENTITLED TO PAY SM	ALL ENTITY		
	y of the oath or declaration is supplied under Box 4 sidered to be part of the disclosure of the accompar	, 'S FE	ES. A SMALL ENTITY	STATEMENT IS RE	QUIRED (37 C.F.R. § 1.2) RELIED UPON (37 C.F.R.	I). EXCEPT	Ì	
	lication and is hereby incorporated by reference the		ONE FILED IN A PRIO	RAPPLICATIONIS	RELIED UPON (374C.F.R.	3 h (26)	1	
17. If a CO	NTINUING APPLICATION, check appropriate box, and	d supply th	e requisite informati		preliminary amendmen	nt:	1	
□ c	Continuation Divisional 🔣 Continuation-in-par	t (CIP)	of prior applica	ition No:	191,215		1	
Prior a	pplication information: Examiner Nadav,	0	Grou	up / Art Unit:	2811			
	18. CORRESPON	DENCE	ADDRESS]	
Customer Number or Bar Code Label. ; or Correspondence address below (Insert Customer No. or Attach bar code label here)								
Name	Stephen A. Gratton	e didibiolo la lei	ermillen er er en				1	
1101110	THE LAW OFFICE OF STEPHEN A.	GRAT"	TON				1	
	2764 South Braun Way						1	
Address							1	
City	Lakewood State	C		Zip Code	80228	· · · · · · · · · · · · · · · · · · ·	1	
Country	US Telephone	303	989 6353	Fax	303 989 6538	8	1	
Name /	Print/Type) Stonbon A Crotton		Registration No. (A	Attomey/Acent\		$\overline{}$	ad .	
<u> </u>	stephen A. Gracton		1. og Stration 140. (/		28,418			
Signatui	n 1/2/2 しょえつ	_		Date	March 1 100	oo I		

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

PTC/SB/17 (2/98)
Approved for use through 9/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

F	E	E	T	R	A	N	S	M		T	T	A	L
---	---	---	---	---	---	---	---	---	--	---	---	---	---

Patent fees are subject to annual revision on October 1. These are the fees effective October 1, 1997.

Small Entity payments <u>must</u> be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12. See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL	AMOUN	T OF F	PAYMENT

(\$) 838.00

Complete if Known					
Application Number					
Filing Date	March 1, 1999	ဥ			
First Named Inventor	Tongbi Jiang	ŭ-			
Examiner Name	0. Nadav	ю. 99.			
Group / Art Unit	2811	ည်င			
Attorney Docket No.	98-0645.1	80			

METHOD OF PAYMENT (check one)	FEE CALCULATION (continued)	ň
The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:	3. ADDITIONAL FEES Large Entity Small Entity For For For For For For For Page Page Interest Page Page Page Page Page Page Page Page	
Deposit	Code (\$) Code (\$)	Fee Paid
Account Number 07–1857	105 130 205 65 Surcharge - late filing fee or oath	
Deposit Account Name	127 50 227 25 Surcharge - late provisional filing fee or cover sheet.	
Charge Any Additional Charge the Issue Fee Set In	139 130 139 130 Non-English specification	
SCM Fee Required Under 37 C.F.R. § 1.18 at the Mailing of the Notice of Allowance	147 2,520 147 2,520 For filing a request for reexamination	
- C Bound Frederick	112 920° 112 920° Requesting publication of SIR prior to Examiner action	
2. 🔀 Payment Enclosed: Check Order Other	113 1,840° 113 1,840° Requesting publication of SIR after Examiner action	
FEE CALCULATION	115 110 215 55 Extension for reply within first month	
	118 400 216 200 Extension for reply within second month	
1. BASIC FILING FEE	117 950 217 475 Extension for reply within third month	
Large Entity Small Entity Fee Fee Fee Fee Pescription Fee Paid	118 1,510 218 755 Extension for reply within fourth month	
Code (\$) Code (\$)	128 2,060 228 1,030 Extension for reply within fifth month	
101 790 201 395 Utility filing fee 760	119 310 219 155 Notice of Appeal	
106 330 206 165 Design filling fee	120 310 220 155 Filing a brief in support of an appeal	
107 540 207 270 Plant-filing fee	121 270 221 135 Request for oral hearing	
108 790 208 395 Reissue filing fee	138 1,510 138 1,510 Petition to institute a public use proceeding	9
114 150 214 75 Provisional filing fee	140 110 240 55 Petition to revive - unavoidable	
SUBTOTAL (1) (\$) 760	141 1,320 241 660 Petition to revive - unintentional	
2. EXTRA CLAIM FEES	142 1,320 242 660 Utility issue fee (or reissue)	
Fee from Extra Claims below Fee Paid	143 450 243 225 Design issue fee	
Total Claims 13 -20** = 0 X 18 = 0	144 670 244 335 Plant issue fee	
Independent 4 - 3** = 1 × 78 = 78	122 130 122 130 Petitions to the Commissioner	
Multiple Dependent	123 50 123 50 Petitions related to provisional application	8
**or number previously paid, if greater, For Reissues, see below	128 240 128 240 Submission of Information Disclosure Str	nt -
Large Entity Small Entity Fee Fee Fee Fee Description Code (\$) Code (\$)	581 40 581 40 Recording each patent assignment per property (times number of properties)	
103 22 203 11 Claims in excess of 20	146 790 246 395 Filing a submission after final rejection	
102 82 202 41 Independent claims in excess of 3	(37 CFR 1.129(a)) 149 790 249 395 For each additional invention to be	
104 270 204 135 Multiple dependent claim, if not paid	examined (37 CFR 1.129(b))	
109 82 209 41 [™] Reissue independent claims over original patent	Other fee (specify)	
110 22 210 11 "Relssue claims in excess of 20 and over original patent	Other fee (specify)	
SUBTOTAL (2) (\$) 78	Reduced by Basic Filing Fee Paid SUBTOTAL (3)	
SUBMITTED BY		

SUBMITTED B	Υ	Complete (if applicable)			
Typed or Printed Name	Stephen A. Gratton			Reg. Number	28,418
Signature	SAIN	Date	3/1/99	Deposit Account User ID	

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.





Date of Deposit: March 1, 1999

CERTIFICATE OF MAILING BY EXPRESS MAIL UNDER 37 C.F.R. §1.10

I hereby certify that this divisional application in the names of TONGBI JIANG and EDWARD SCHROCK entitled "METHOD FOR FABRICATING BGA PACKAGE USING SUBSTRATE WITH PATTERNED SOLDER MASK OPEN IN DIE ATTACH AREA" along with a Utility Patent Application Transmittal; a Fee Transmittal; a check in the amount of \$838.00 for the filing fee; a copy of the patent specification (pages 1-24), drawings (6 sheets), a "Declaration and Power of Attorney for Patent Application (Joint Inventors) " in the prior application (Serial No. 09/191,215); a Change of Address for Correspondence; a Preliminary Amendment dated March 1, 1999 (pages 1-2); an Information Disclosure Statement along with copies of the cited references; and a return receipt postcard are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above in an envelope addressed to the Assistant Commissioner of Patents, BOX PATENT APPLICATION, Washington, D.C.

DATED this 1st day of March, 1999.

Stephen A. Gratton, No. 28,418

Attorney for Applicants

2764 South Braun Way Lakewood, CO 80228

Telephone: (303) 989 6353

Fax: (303) 989 6538

Docket No. 98-0645.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

TONGBI JIANG EDWARD SCHROCK

Serial No.:

Division of Serial No.

09/191,215 filed November 12, 1998

Filing Date: March 1, 1999

Title: METHOD FOR FABRICATING BGA

PACKAGE USING SUBSTRATE WITH PATTERNED SOLDER MASK OPEN IN

DIE ATTACH AREA

Attorney Docket No.: 98-0645

CHANGE OF ADDRESS FOR CORRESPONDENCE March 1, 1999

Commissioner of Patents and Trademarks BOX PATENT APPLICATION Washington, D.C. 20231

Sir:

Please direct all correspondence in connection with the above-identified patent application to the following address:

STEPHEN A. GRATTON 2764 South Braun Way Lakewood, CO 80228

DIRECT TELEPHONE CALLS TO:

Stephen A. Gratton (303) 989-6353

FAX: (303) 989-6538

Art Unit: 2811

Examiner: NADAV, O.

Respectfully submitted:

Stephen A. Gratton

Registration No. 28,418 Attorney for Applicants

2764 South Braun Way Lakewood, CO 80228

Telephone: (303) 989 6353

DATED this 1st day of March, 1999.

Respectfully submitted:

Stephen A. Gratton

Registration No. 28,418 Attorney for Applicants

2764 South Braun Way Lakewood, CO 80228

Telephone:

(303) 989 6353

FAX:

(303) 989 6538

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

Express Mail No. EE 697 314 553US Date of Deposit: March 1, 1999

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Address" Service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner of Patents, Box Patent Application, Washington, D.C. 20231.

Date of Signature

Stephen A. Gratton Attorney for) Applicant